

3. HABITATS, FEEDING, BREEDING AND REACTION TO MAN
OF THE DESERT CAT *FELIS LIBYCA* (GRAY)
IN THE INDIAN DESERT

Prater (THE BOOK OF INDIAN ANIMALS, 1971) states that very little is known about the habits of this cat except that it lives in desert and scrub jungle and preys mainly on desert gerbilles and other small rodents and birds. Breeding habits are not known. I studied the habitat preferences, food habits and breeding biology of the Desert Cat in the Indian desert in Western Rajasthan from January 1974 to April 1977.

Habitat. Scrub wasteland is the typical habitat. In the Indian desert, thickets of *Maytenus emarginatus*, *Acacia modesta*, *Salvadora* spp., and those particularly of *Capparis decidua* provide suitable haunts for the desert cat. In saline soil areas, the cat was observed in thickets of *Tamarix dioica*. It is noteworthy that *Prosopis juliflora* is spreading extensively in various regions of the Indian desert; this tree provides favourable habitat for the cat. A number of this cat were seen commonly in thick scrub close to tanks, probably because prey species are available there.

Food habits. Prater's surmise that, the Desert Cat largely lives on the desert gerbille (*Meriones hurrianae*) was found to be correct, analysis of droppings showed a very high percentage (about 10%) of hairs of the hare (*Lepus* sp.). The cat ambushes the gerbilles close to their burrows. But it was noted that often gerbilles succeeded in escaping into their burrows, younger gerbilles which are less aware and careless, fall easy victims.

The Desert Cat was observed hunting hare, doves (*Streptopelia decaocto* and *S. senegalensis*), grey partridge (*Francolinus pondicerianus*), sandgrouse (*Pterocles exustus*), peafowl (*Pavo cristatus*), bulbuls (*Pycnonotus*

cafer, *P. leucogenys*) in jungles and the house sparrow (*Passer domesticus*), rats (*Rattus* spp.) and the blue-rock pigeon (*Columba livia*), etc. in agricultural farms. The cat hunts its prey on trees and also from the tree, it pounces on the unwary hare, partridge and peafowl on the ground, under the tree.

It was also observed killing snakes such as the cobra (*Naja naja*), the Sawscaled viper (*Echis carinatus*) and the Sand boa (*Eryx johnii*). First the cat injures the snake at the hind quarters by striking with its paws; when the snake becomes exhausted, the neck of the snake is bitten and the snake killed. Some portions of the killed snake are eaten by the cat. Usually the attacked snake succeeds in escaping into a nearby bush, burrow or pile of stones after the first or second charge by the cat.

The cat also kills and eats the gecko (*Hemidactylus* spp.), scorpions and large beetles. It also robs clutches and broods of birds particularly ground birds such as the partridge, the peafowl and the sandgrouse.

Breeding. The desert cat breeds in the winter, in October and between February to April. The litter size was observed to be 3 to 5 usually, 4. The breeding site was often a den having three openings of about 20×15 cm, in different directions situated in a hummock with a bush growing over it, preferably surrounded by colonies of gerbilles. Such breeding sites seem to be provide enough food (gerbilles) for the young as well as protection from enemies, e.g. the stray dog and the Jungle cat (*Felis chaus*). In farms, the desert cat was observed breeding in a hollow in a fodder stack.

The cat was observed teaching her young by putting half killed gerbilles before her kittens. The young were seen attempting to hunt (kill) the injured gerbille. The cat was also seen bringing beetles and eggs of ground birds for her young.

Two young of the cat were seen killed by stray dogs of a nearby village and three young by male cats of the area.

Enemies. The jackal (*Canis aureus*), the wolf (*C. lupus*) and the stray dog are enemies of the desert cat. The cat escapes by climbing up a nearby tree or hiding under a thick bush when chased. In agonistic behaviour, it was observed erecting the hairs of its body,

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particularly of the tail, and if necessary striking at the mouth and nose of the enemy with its paws in an effort to escape. The cat was observed to be fairly successful in avoiding fatal attacks by dogs by this method. It falls a victim only when encircled by two or more dogs.

The desert cat was found to be a notable factor in controlling the population of the desert gerbilles in the sandy scrub wasteland. There is no serious predator of the cat but its population is restricted by poor breeding success, because of the young being often killed by males of its own species and stray dogs of nearby village areas.

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4. INTER-SPECIFIC RELATIONSHIP IN SOME SPECIES OF INDIAN BATS WITH A NOTE ON BAT FAUNA OF BHUBANESWAR

INTRODUCTION

An extensive survey of bats from Bhubaneswar and its vicinity was made by me between 1972 to 1976 for approximately four years, to study their ecology and reproductive biology. Bhubaneswar (20° 30'N, 85° 30'E) is situated near the eastern coast at 45 metres a.s.l. and there is neither extreme cold nor extreme heat. The rainfall ranges between 100 to 200 cm. and the annual temperature ranges from 10.6°C. to 43.3°C. The bats were captured from old temples, caves, old and desert-

ed houses, cowsheds, palm trees, etc.

The present report on inter-specific relationship in some species of Indian bats is an outcome of this survey.

Taphozous melanopogon (Emballonuridae) colonies of a few hundred specimens, were seen inhabiting most of the temples at Bhubaneswar, Orissa.

Monthwise collections of *Taphozous melanopogon* was made from Mausima, Bhaskaresvara and Brahmesvara temples for over three years for studying its ecology and reproductive biology (Khaparde 1976)¹. Frequent collections (several times a month) of *Taphozous melanopogon* were made during the breeding season from the above temples with a view to obtain closely graded stages

¹ KHAPARDE, M. S. (1976): Notes on the breeding habits of the Indian sheath-tailed bat, *Taphozous melanopogon* (Temminck). *J. Bombay nat. Hist. Soc.* 73 (2): 321-324.